

# Singapore public hospitals in 'outbreak response mode'

### All patients at emergency departments screened; protection measures in place

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Senior Health Correspondent

All public hospital emergency departments here are in "outbreak response mode" as Singapore raises its defences against a mysterious, Sars-like virus that is spreading in China.

"We cannot rule out the possibility that the new (Wuhan) virus will reach Singapore," Professor Leo Yee Sin, executive director of the National Centre for Infectious Diseases (NCID), told The Straits Times. The stakes are higher now that the virus has started spreading from human to human.

All patients at emergency departments are screened, and those with fever and travel history are isolated. All general practice doctors have also been told what to look out for and given a number to call if there are any suspect patients.

Any such call from a doctor will activate a special ambulance which will transport the suspected patient straight to the NCID. This is to nip the spread of the virus in the bud. The ambulance will then be properly cleaned before being used again.

At the NCID, the patients will be placed in special negative pressure isolation rooms, where air flows

only into the rooms, not out of them. The air in the rooms is sucked out through high-efficiency particulate air, or Hepa, filters.

Prof Leo said the NCID has "high-end" Hepa filters in 124 negative pressure isolation rooms which clean 99.999 per cent of contaminants, including viruses.

As an extra precaution, even after it has gone through the filters, the air is further cleaned with ultraviolet rays.

It will take the laboratory between four and eight hours to determine if the patient is infected with a coronavirus. If that test proves positive, genetic sequencing will be done to confirm that it is the new bug. That takes 24 hours.

Prof Leo said there are a lot of coronaviruses but only seven, including this new one, that spread from human to human.

Four types cause the common cold and the flu. The other two are the more dangerous Sars (severe acute respiratory syndrome) and Mers (Middle East respiratory syndrome).

Fifteen medical staff in Wuhan were infected with the virus, currently called the 2019-nCoV.

Prof Leo said that it is not yet known whether this virus is as



**National Centre for Infectious Diseases executive director Leo Yee Sin** said Singapore has a stockpile of the disposable personal protective equipment as well as powered air purifying respirators - enough to supply all hospitals should a major outbreak occur here.

dangerous as Sars. But Singapore is not taking chances. All medical staff dealing with suspected cases are well protected with personal protective equipment (PPE) and powered air purifying respirators - to filter out any possible virus.

Prof Leo said Singapore has a stockpile of the disposable PPE as well as the powered air purifying respirators - enough to supply all hospitals should a major outbreak occur here.

She added that should there be a positive case of the Wuhan bug here, people will be told.

"We need to be able to share the information and be able to guide the public, as well as the entire public healthcare system, to be able to handle the situation," she said.

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The negative-pressure ward (above) at the National Centre for Infectious Diseases, where air flows only into the rooms, not out of them. Medical workers (right) will don personal protective equipment and powered air purifying respirators. ST PHOTOS, DESMOND FOO

## Measures put in place in Singapore

### WIDER DEFINITION

Singapore's Ministry of Health has widened its definition of suspect cases, and it will now include anyone with pneumonia who had been to China - not just Wuhan - within 14 days of the start of the illness. Anyone with acute respiratory infection who has been to any hospital in China within a fortnight of getting ill will also be treated as a suspect case.

### SUSPECT CASES

All patients at emergency departments are screened, and those with fever and travel history are isolated. At the National Centre for Infectious Diseases (NCID), the patients will be placed in special negative pressure isolation rooms, where air flows only into the rooms, not out of them.

### MORE SCREENINGS

From today, Changi Airport will conduct temperature screening for all flights from China, and not just those from Wuhan. So far, all seven

suspected cases in Singapore have proven not to have the Wuhan bug.

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## Precautions for the public

- Avoid contact with live animals, including poultry and birds. Do not eat raw or undercooked meat.
- Avoid close contact with people who are sick.
- Observe good personal hygiene.
- Wash hands with soap frequently, such as before eating, after going to the toilet, or if dirtied through sneezing or coughing.
- Wear a mask if you have a cough or runny nose.
- Cover your mouth with a tissue when coughing or sneezing, and dispose of the soiled tissue paper in the rubbish bin immediately.
- Seek medical attention promptly if you are feeling unwell.

## Experts advise protective steps against the virus

Joyce Teo

Health practitioners and experts advised people to protect themselves by maintaining simple, practical hygiene practices such as washing one's hands often. Clinic chain Raffles Medical said human coronaviruses most commonly spread from an infected person to others through the air by coughing and sneezing, close personal contact, and touching one's mouth, nose, or eyes after touching an object or surface with the virus on it, before washing one's hands.

Although vaccination against influenza does not confer protection, Raffles Medical said people should still get vaccinated, especially if they are planning to travel. This will prevent you from contracting influenza symptoms and signs that may mislead screening authorities at temperature checkpoints, and result in unnecessary anxiety and delays to your travel," it said.

Dr Edwin Chng, medical director of Parkway Shenton, said travellers should avoid contact with live animals and consumption of raw or undercooked meat and avoid close contact with people who are unwell or showing symptoms of illness.

Infectious disease experts said Singapore is better prepared to handle an outbreak today. Professor Paul Tambyah, from the department of medicine at the NUS Yong Loo Lin School of Medicine, said: "I think that we should be concerned but there are plenty of measures in place to detect cases, isolate and treat them appropriately in Singapore as well as in the other countries in the region."

Associate Professor Hsu Li Yang, the programme leader (infectious diseases) at NUS Saw Swee Hoek School of Public Health, said Singapore is far better prepared today than it was during the Sars outbreak 17 years ago, and the impact of the new virus, if it was imported to Singapore, was likely to be negligible.

"China's healthcare system and disease outbreak control capabilities have also improved dramatically since 2003," he believes to maintain the outbreak."

Dr Leong Hoe Nam, an infectious disease specialist at Mount Elizabeth Novena Hospital, advised caution when travelling to China. He said individuals who suspect they might have the virus must come forward to be tested and isolated if necessary.

"The more the virus roars free, the more it adapts to humans and the easier the transmission," he said.

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## Timeline of how new coronavirus has spread

DEC 31, 2019

### Alarm raised

The World Health Organisation (WHO) is alerted by the Chinese authorities about a string of pneumonia-like cases in Wuhan, a city of 11 million people.

Patients are quarantined and work begins on identifying the origin of the pneumonia.

The United States Centres for Disease Control and Prevention (CDC) identifies a seafood market suspected to be at the centre of the outbreak. It is closed on Jan 1, 2020.

JAN 9, 2020

### New coronavirus

The WHO says that the outbreak in Wuhan was caused by a previously unknown type of coronavirus, which covers a broad family ranging from the common cold to more serious illnesses like Sars.

Fifty-nine people are reported to have been infected, with seven in a serious condition.

JAN 11

### First death

The Chinese health authorities report the death of the first person from the virus.

JAN 13-16

### Beyond China

It is known for the first time that the virus has spread beyond China's borders with a case emerging in Thailand, according to the WHO. The victim is a Chinese woman diagnosed with mild pneumonia who was returning from a trip to Wuhan.

On Jan 15, China's health commission says no human-to-human transmission of the virus behind the Wuhan outbreak has been confirmed so far, but the possibility "cannot be excluded".

The next day, Japan confirms its first case of the virus in someone who had stayed in Wuhan in early January.

JAN 17

### US controls

A second person, a 69-year-old man, dies in Wuhan, according to the authorities.

The same day, the CDC announces that it will begin screening passengers arriving from Wuhan at three US airports: San Francisco, New York's JFK and Los Angeles.

JAN 20

### Human to human

On Jan 20, a third death and more than 100 new cases are announced in China, sparking concerns ahead of the annual Chinese New Year holiday which begins on Jan 25 and sees hundreds of millions of Chinese people travel nationwide.

The virus is present in Beijing in the north, Shanghai in the east and Shenzhen in the south. More than 200 cases have been recorded. The virus is also detected in South Korea in a Chinese person who had arrived by plane from Wuhan.

China's President Xi Jinping says the virus must be "resolutely contained", in his first public comments on the outbreak.

Human-to-human transmission is "affirmative", top Chinese infectious diseases expert Zhong Nanshan tells state broadcaster CCTV.

JAN 21

### More deaths

Wuhan officials reveal three more deaths in the city, bringing the tally to six as the number of confirmed cases in mainland China inches closer to 300.

By this time, the virus is known to have affected people in Hubei - where Wuhan is located - Beijing, Guangdong, Shanghai and Zhejiang in China.

Elsewhere, Taiwan reports its first confirmed case of infection a Taiwanese businesswoman in her 50s who flew back home from Wuhan on Jan 20.

AGENCE FRANCE-PRESSE, REUTERS

## InBrief

### Philippines probes first possible case of virus

MANILA • Philippine health officials are yesterday investigating what may be the country's first case of an infection involving a mysterious Sars-like coronavirus first detected in China's Wuhan province.

A five-year-old boy was taken to a hospital in Cebu City, in central Philippines, just hours after he arrived with his mother from Wuhan on Jan 12. He was coughing and had a fever.

Health Secretary Francisco Duque said the Bureau of Quarantine is now working with airlines and the airport authorities "to strengthen border surveillance", and the Epidemiology Bureau will be stepping up its community surveillance.

REUTERS, PHILIPPINE DAILY INQUIRER/ASIAN NEWS NETWORK

### Suspected Aussie case isolated at home

CANBERRA • A man showing symptoms of a Sars-like virus after visiting China is being held in isolation at his Australian home, in the country's first suspected case of the coronavirus, health officials said yesterday.

Australia said it would introduce from tomorrow heightened medical screening for travellers arriving on three weekly flights in Sydney from Wuhan.

Passengers would be given an information pamphlet and asked to present themselves if they had a fever or suspected they might have the disease. Australia said the measures offered only limited protection.

AGENCE FRANCE-PRESSE

### India widens thermal screening at airports

NEW DELHI • India is expanding thermal screening of passengers arriving from China, including Hong Kong, to seven airports, said the Ministry of Civil Aviation.

On top of three airports - New Delhi, Mumbai and Kolkata - identified earlier, airports in Chennai, Bangalore, Hyderabad and Kochi have been added.

India has so far been spared from the virus, with not a single suspected case.

### Free cancellation for Wuhan travel bookings

SHANGHAI/BEIJING • Chinese travel booking platforms from Trip.com to Alibaba Group's Fliggy said yesterday that they would offer free cancellation on bookings made for Wuhan amid mounting fears over a viral outbreak in the central Chinese city.

The companies, which also include Meituan Dianping and Qunar.com, said in separate but similar statements that the policy would be extended to users who had been put under quarantine or diagnosed with the new coronavirus.

At least nine Chinese airlines have issued policies allowing travellers who had been quarantined or diagnosed with the virus to reschedule or cancel their flights for free, the Beijing Daily reported.

REUTERS

### First confirmed case of virus in Taiwan

TAIWAN • Taiwan yesterday reported its first confirmed case of the new Sars-like coronavirus as the government warned the public against travelling to the Chinese city of Wuhan where it emerged.

The patient is a Taiwanese woman in her 50s, living in Wuhan, who returned to the island on Monday with symptoms including fever, coughing and a sore throat.

She reported her symptoms to quarantine officials upon arrival at Taoyuan airport and was immediately taken to a hospital for treatment, said the island's Centres for Disease Control.

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### Measures in place at UAE airports, ports

DUBAI • The United Arab Emirates (UAE), a major international transit hub, has made sure that its airports and ports are ready to handle coronavirus cases following the outbreak, state news agency WAM reported.

No cases of the virus have been reported in the country, it said.

The report did not disclose whether any new countermeasures had been taken since the outbreak. REUTERS



From top: Thermal scanners in use at Kuala Lumpur International Airport yesterday; a health quarantine sign at Noi Bai International Airport in Hanoi yesterday; and passengers arriving from Wuhan being screened earlier this month at Taoyuan International Airport in Taiwan. PHOTOS: AGENCE FRANCE-PRESSE

Left: Quarantine staff disinfecting Incheon airport in South Korea yesterday. PHOTO: EPA-EFE

## New virus won't cause massive outbreak like Sars did, says top expert

BEIJING • The pneumonia outbreak in the central Chinese city of Wuhan will not evolve into a massive outbreak similar in scale to the Sars outbreak 17 years ago, said a renowned Chinese scientist.

Dr Zhong Nanshan, who discovered the severe acute respiratory syndrome (Sars) coronavirus in 2003, said on Monday that evidence has shown that the new virus causing the pneumonia outbreak in

Wuhan can spread from human to human.

Dr Zhong now heads a high-level expert team under the National Health Commission.

"It has been confirmed that two people in Guangdong province were infected through human-to-human transmission," he said at a news conference.

The two patients had not been to Wuhan, where the outbreak

started, but they became sick after their family members recently returned from the city, he said.

The other reason is that in the past few days, the local authorities have been authorised to confirm such cases on their own, as long as the patient has tested positive twice. Previously, confirmation

could be done only by the Chinese Centre for Disease Control and Prevention and other national institutes, which slowed down this

process, said Dr Zhong.

But the pneumonia outbreak in Wuhan will not evolve into a massive outbreak similar in scale to the Sars outbreak 17 years ago, he said.

"We identified the new coronavirus just two weeks after the outbreak was reported, and we have very good virus monitoring and quarantine measures," he said. "I believe the outbreak will not have the impact on society and the econ-

omy that Sars did 17 years ago."

However, the number of cases of the new virus is expected to continue rising during the Chinese New Year holiday, which starts on Friday, due to the large number of people travelling nationwide, which will lead to the disease spreading more easily, he said.

Dr Zheng Guang, chief epidemiologist at the Chinese Centre for Disease Control and Prevention, said

## Virus worries rattle Asian markets, and the gloom spreads to Europe

HONG KONG • A deadly virus emanating from China helped bring this year's global risk rally to a halt yesterday, hammering sentiment in Asian markets before the gloomy mood spilled over into Europe.

Traders closing out positions in the run-up to the Chinese New Year holiday may have accelerated moves in Asia, where Hong Kong equities slumped 2.8 per cent and the MSCI Asia-Pacific Index dropped more than 1 per cent.

Luxury stocks in Europe, many heavily exposed to the Chinese market, slid on concern that the outbreak will disrupt travel and spending in the key holiday period.

"It is uncertain how the virus outbreak will develop in China during the holidays," said Mr Jackson Wong, asset management director at Amber Hill Capital. "We are holding more cash and we are avoiding travel-related stocks and some technology stocks that had already jumped a lot earlier."

The outbreak is the latest test for global equities, which have notched multiple record highs since the start of the month.

Previous viral episodes like the deadly Sars outbreak spurred a pull-back in the S&P 500, although the index rebounded quicker than its Asian equity peers.

Futures for the main US gauge slipped yesterday as Asian markets bore the brunt of concerns. The Hang Seng China Enterprises Index tumbled more than 3 per cent in Hong Kong.

The decline was exacerbated by a Moody's Investor Service downgrade of the city state's rating while China's new top official there urged policymakers to enact national security legislation. The CSI 300 index of stocks in Shanghai and Shen-

zhen dropped 1.7 per cent.

In line with other Asian markets, Singapore stocks slid yesterday on mounting worries about the spread of the virus that originated from Wuhan, a city in central China.

The Straits Times Index ended down 32.22 points, or 1 per cent, at 3,247.17, after dropping as much as 1.4 per cent earlier in the day.

The pain was widespread with 350 losing stocks against 138 gainers. Trading was heavy with 2.67 billion securities worth \$1.11 billion changing hands.

Airlines, travel and related companies were some of the biggest stock losers in the region. Shares of Singapore Airlines skidded 18 cents, or 2 per cent, to \$8.84, while services provider Sats fell 12 cents, or 2.37 per cent, to \$4.94.

Some stocks profited from being makers of "protective products". Malaysia-based rubber glove manufacturer Top Glove, for example, saw its shares jump 12 cents, or 7.55 per cent, to \$1.71 in anticipation of higher demand for its products.

Shares of Medtecs International - which makes hospital apparel and disposable personal protective equipment - soared 4 cents, or 76.9 per cent, to 9.2 cents.

"The bigger concern would actually be if it starts to spread to other Asian countries," said Mr Khoon Goh, head of Asia research at Australia and New Zealand Banking Group in Singapore.

"If it is serious enough to impact tourism, then other currencies in the region will be more vulnerable."

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• Additional reporting by Ann Williams  
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